



THOMAS G. NEWMAN,
EDITOR.

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EDITORIAL BUZZINGS.

Mr. C. Theilmann met with an accident lately. His horses ran away, and he was thrown out of his wagon, and broke his collar-bone. It has been "set," and he is recovering.

The *Guardian*, New Castle, Pa., having lately published one of the floating sensational articles about "Bees having been declared a nuisance in New York," Mr. T. S. Sanford sent the editor of that paper an editorial from the *BEE JOURNAL* on the matter, and it was published in the *Guardian* of Oct. 31, with Mr. Sanford's remarks as follows:

EDITOR *GUARDIAN*:—The following taken from the *AMERICAN BEE JOURNAL* refers to an item appearing in your paper a few weeks ago, regarding bees being declared a nuisance in the courts of New York. This case will be carried to the Supreme Court and defended by the Bee-Keepers' Union. The Union has never lost a suit it has defended, and it is worthy the support of all bee-keepers.

It is the duty of bee-keepers everywhere, when they notice in their local papers articles which do injustice to the pursuit, to refute them at once in the papers where they appeared—as Mr. Sanford has so nobly done.

Mr. S. L. Watkins has withdrawn from the *Western Apiarian*, which will hereafter be edited and published by Mr. Frank E. McCallum. It has reached its fifth number, and we hope it will succeed—but it is an up-hill business to establish any new periodical, and requires lots of money to sustain it until the point is reached when it will pay expenses. Its editor promises to publish it for one year, if it takes all the money he has or can raise in the world. He is *plucky*—that is certain.

Honey Almanac.

Its 32 pages are filled with interesting facts, figures and suggestions concerning the uses of Honey for Food, Beverages, Cooking, Medicines, Cosmetics, Vinegar, etc. Also, its effects on the human system are tersely noted; a brief refutation is given of the Wiley lie about manufactured comb honey; a short dissertation sets forth the mission of bees in fertilizing the flowers, and increasing the fruit product. Instead of being an injury to fruit, bees are the fruit-growers' best friends.

Beeswax, its uses, how to render it, and its importance as a commercial product, is described, and 17 useful Recipes are given.

Each alternate page is an illustrated calendar for the month—making a complete Almanac for the year 1890.

Here is what is said of it by those who have seen the Honey Almanac:

The Honey Almanac is here. Please allow me to congratulate you, and the bee-keepers as well. This ought to aid every bee-keeper to the easier and better disposal of his honey. You have stowed between these covers very much valuable information—just what we need to scatter broadcast. I hope they will "go like honey-cakes."—A. J. Cook, Agricultural College, Mich.

The "Honey Almanac" to hand. Allow me to say that I believe it will mark a new era with bee-keepers, as regards the selling of our product, and meets a *long felt want*. Patent medicine men have "got rich" by this way of advertising their wares, and I see no reason why we as apiarists should not take advantage of such "pointers."—G. M. Doolittle, Borodino, N. Y.

The "Honey Almanac" is something unique. It is a fine thing to have so many honey recipes, in such compact form, always ready for reference. It would be a good thing to have such things circulated among customers.—C. C. Miller, Marengo, Ills.

The new "Honey Almanac" should fulfill every object sought by its projectors. It would be difficult to conceive of a better plan to develop and enlarge a home market for our products than the distribution of these Almanacs. The interest you have manifested in bee-half of bee-keepers in this matter, should meet with a hearty response.—G. L. Tinker, New Philadelphia, O.

Your Honey Almanac is just received. My first thought was, "How in the world can they furnish it at the prices quoted?" The recipes, useful suggestions, and valuable information it contains is worth many times its cost, and must be of great value to the public and the bee-keeper, if scattered broadcast by him. I hope you will sell a million before the first of January.—Geo. E. Hilton, Fremont, Mich.

The "Honey Almanac" is received. Of the many Almanacs published, this is surely the *best* and most *useful* of all. It will assist greatly in creating a demand for the purest and best of sweets—honey.—J. W. Buchanan, Eldora, Iowa.

The "Honey Almanac" for 1890 is received. There is much valuable matter contained in it, interesting alike to the honey-producer as well as the consumer. I believe it would be greatly to the interest of every honey-producer to circulate the "Honey Almanac" freely throughout the community where he lives. I hope every bee-keeper will see to it that this is done.—J. W. McKinney, Camargo, Ills.

I have received the Almanac, and it just fills the bill—something we should have had before.—J. W. LeRoy, Rio, Wis.

I think that the Honey Almanac is the best way of advertising our honey yet thought of.—G. C. Spencer, Panton, Vt.

I have examined the Honey Almanac, and find it a capital hit. If one's home market be lifeless, a liberal distribution of the Almanac cannot fail, it seems to me, to give it life.—R. L. Taylor, Lapeer, Mich.

The Honey Almanac is received, and I consider it a triumph in our line. Its usefulness as a collection of recipes ought to insure its preservation in every home, and thereby increase the demand for honey immensely.—J. M. Shuck, Des Moines, Iowa.

The "Honey Almanac" is received. It is very nicely gotten up with many valuable recipes, and the calendar part is very handily and plainly put together, intervened by honey recipes, so that by looking to find the date, any one can hardly fail to notice the honey literature, and thereby do the work that the Almanac is intended to do. Every producer of honey should order some of these helping-means to sell and get good prices for honey—as the money paid for them will surely bring big returns, if distributed over our whole land.—C. Theilmann, Theilmanton, Minn.

The "Honey Almanac" for 1890 is received. I have perused it, and find in it a most apposite work for the dissemination of knowledge pertaining to bees, honey, wax, and other useful information.

I am of the opinion that any household which may possess this Almanac, where there was a paucity of facts concerning honey, its important qualities, and in the matter of the manufacturing of the so-called "artificial comb honey" previous to obtaining it, will, after perusing and digesting its contents, rebuke with a severe and just hand all articles emanating from the reporter's imaginative brains.

The book contains enough of facts aside from bee-keeping to make it doubly valuable, which, together with its neatness, clean printing, etc., makes it worthy of its name as an Almanac.

I hope that the sales of the "Honey Almanac" will be colossal, and that it will produce an immensity of good among the people of our grand and glorious United States, towards the increasing of the consumption of that delicious liquid—honey.—H. K. Staley, Cincinnati, O.

This Honey Almanac places in the hands of bee-keepers a powerful lever to revolutionize public sentiment, and create a market for honey, by making a demand for it in every locality in America.

Wisdom would dictate that a million of them be scattered by the first of January.

Prices: \$2.50 per 100; 500 copies for \$10.00; 1,000 copies for \$15.00, delivered at the freight or express office here. The bee-keeper's Card will be printed upon the first page, without extra cost, when 100 or more are ordered at one time. Postage, 40 cents per 100 extra. All orders can now be filled as soon as received.

Whoever before heard of a set of the Waverley Novels being sold for less than \$12.00? Just think of our offer of either these or the Works of Dickens, with the *BEE JOURNAL* until Dec. 31, 1890—all for \$2.10! See the last page of this paper.

Misrepresenting Comb Honey.

On page 691 we mentioned the fact that we had written a letter to the editor of the Chicago Daily *Herald*, requesting him to correct his misstatement about "Manufactured Comb Honey." He put this heading to our letter, and added comments as follows:

Adulterated Comb Honey.

Editor of The Herald:—In a recent issue, under the head of "Short Answers," you say: "There is such a thing as manufactured honey. The comb is made out of paraffine." As you ought to know something about the matter you so positively assert, I call for the proof. A member of the National Bee-Keepers' Union offers \$1,000 for a sample of the bogus "comb honey"—with combs made of paraffine and filled with glucose by machinery, etc., as the newspapers sensationally affirm. Will you please to either produce the product, give proof of its manufacture by saying where it is done, and by whom, or else make the correction in *The Herald*? I am prepared to prove beyond contradiction that your statement is wholly false and untrue.

THOMAS G. NEWMAN.

[*The Herald* very gladly gives this correspondent its authority on the point in question. In a work entitled "Food Adulteration and Its Detection," by Jesse P. Battershall, Chemist in the United States Laboratory, New York city, the author says at page 122: "Occasionally the bees are also supplied with a ready-made comb consisting at least partially of paraffine." He also states that some bee-keepers place vessels of glucose near the hives for the bees to feed on. Other articles of a similar character are used by which the bees themselves are made to adulterate their own honey. This author further says, at page 128, "Eighteen out of thirty-seven samples of strained and comb honey examined in 1885 by the Massachusetts Board of Health, were adulterated with glucose and ordinary syrup." It will thus be seen that the statement of *The Herald*, that comb honey is adulterated, is proved by the highest authority.]—*Editor of The Herald.*

Thereupon we wrote this reply, for which we hope he will soon find room:

Manufactured Comb Honey.

Editor of The Herald:—In your issue of Oct. 27, you made this statement: "There is such a thing as manufactured honey. The comb is made out of paraffine." This I denied, and called for the proof, by your submitting at least a sample of the product (manufactured comb honey), and stating where and by whom it was made.

As an incentive for you to produce a sample of the "manufactured comb honey," I informed you that a member of the "National Bee-Keepers' Union" offers a thousand dollars for a sample of it, i. e., "combs made by machinery, filled with glucose, and sealed over by a machine made for that purpose." Prove your assertion if you can, and claim the money. *It is waiting for you.*

In *The Herald* of Nov. 5, you attempt to cover up the point at issue by heading your

reply with the words, "Adulterated Comb Honey," and quoting from a New Yorker's book, entitled "Food Adulteration."

The real point at issue is not the adulteration of honey, but "the manufacture of comb, filling and sealing it over by machinery made for that purpose," (as a certain Professor expressed it) "without the aid of bees." Concerning this I asserted that "I am prepared to prove beyond contradiction that your statement is wholly false and untrue." Please stick to the point, and either "produce a sample of the product, give proof of its manufacture by saying where it is done, and by whom, or else make correction in *The Herald*."

In 1887 there was a failure of the honey crop, and the finest opportunity was presented for the markets to be filled with "manufactured comb honey"—if such existed! I dared those who asserted that such was in existence, to produce a single pound of it. And so far not a single ounce of it has been submitted—even though \$1,000 have been offered for a sample of the "stuff," and the information where and by whom it was manufactured.

What a chance was then presented for these mythical manufactories to "run day and night," and supply the demand for honey in the comb! But their failure to do so proves that they do not exist, and exposes the falsity of all the assertions about manufactured comb honey—in the sensational press.

The fact that bees will not touch glucose except on the verge of starvation, is sufficient refutation of the statement of Mr. Battershall, that bee-keepers compel the bees to "adulterate their own honey" by placing "vessels of glucose near the hives," etc. His assertion that "18 out of 37 samples of strained and comb honey, examined in 1885 by the Massachusetts Board of Health, were adulterated with glucose and ordinary syrup," may have some foundation, so far as liquid honey was concerned, *four years ago*, when the price of honey was much higher than glucose—but now the tables are turned, and honey can be purchased as low as glucose. *When it does not pay to adulterate, there is no incentive for doing it*, and but little, if any, adulterated liquid honey is now on the market.

The author of the silly story about "the manufacture of comb honey by machinery made for that purpose, without the aid of bees," is Prof. H. W. Wiley, a letter from whom is in my possession, saying that he "wrote it as a scientific pleasantry," never thinking that any one would be silly enough to think that it was a sober fact or truth! On the contrary, your authority from New York, and a lot of other professors, editors, doctors, lawyers, statesmen and ministers have quoted from Wiley's *lie* about "the manufacture of comb honey by machinery," etc., supposing they had some authority to lean upon! But, alas, the original instiga-

tor of the falsehood confesses to its untruth, over his own signature.

Now, Brother Editor, (for I am not a stranger to the trials, labors, and courtesies of the craft—having for a quarter of a century held the honorable position of Editor on a daily and weekly paper, as well as a class periodical), I feel sure that you have been deceived by a "wily" falsehood—and will cheerfully make the *amende honorable*. It is but *just* to correct a wrong statement, especially when a failure to do so will injure an honorable pursuit, by casting a reflection and doubt upon its product. Many of its devotees are your constant readers—among them

Yours Respectfully,

THOMAS G. NEWMAN.

A reporter of *The Herald* called upon us last week for an interview, which we hope he will write up and insert in *The Herald* at an early day. We gave him pointers, described modern apiarian inventions, showed him Prof. Wiley's letter, acknowledging that there was no foundation for his silly story about "manufactured comb honey," and asserting that it was simply a "scientific pleasantry," etc.

The reporter expressed much surprise that the Professor should have done such a foolish thing as to write an article misrepresenting an industry, and then take such a long time before even offering an explanation, or making a correction.

What the outcome of this interview will be we know not, but hope *The Herald* will be honest enough to give the real facts in the case to its readers. All we ask is truth and justice—we want nothing else.

Doolittle on Queen-Rearing.

Queens can be reared in the upper stories of hives used for extracted honey, where a queen-excluding honey-board is used, which are as good, if not superior, to Queens reared by any other process; and that, too, while the old Queen is doing duty below, just the same as though Queens were not being reared above. This is a fact, though it is not generally known.

If you desire to know how this can be done—how to have Queens fertilized in upper stories, while the old Queen is laying below—how you may *safely introduce* any Queen, at any time of the year when bees may fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing," a book of 170 pages, which is nicely bound in cloth, and as interesting as any story. Price, \$1.00.

An edition in strong paper covers is issued for premiums. It will be mailed as a present to any one who will send us *two* new subscribers to either of our JOURNALS.

The Queen-Bee's Wedding.

BY WILLIAM H. DONOHO.

There's a wedding among the good people—
The Queen of the Bees is the bride;
She stands in the midst of her maidens,
The fairest of all, and their pride.

Her veil is the mist of the morning,
It sparkles with silvery dew;
Her crown is of fresh orange blossoms,
Her sceptre is yielded to you.

To you she has chosen her consort,
The monarch she'll henceforth obey;
Then rule o'er her happy dominions
With scarcely perceptible sway.

Remember the treasure she brings you
Of innocence, beauty and truth;
It calls for a life of devotion,
To fill out the dreams of her youth.

The katydids chirrup their greeting,
The beetles and bats wheel at play;
The amorous breath of the flowers
Is sweeter than ever in May.

The drowsiest bee in the hamlet
Is buzzing with eager delight;
The veriest drone is awakened,
Resisting his slumbers to-night.

The butterflies come from their bower,
The fireflies flash in the grove;
The turtle-doves flutter their pinions
And languidly murmur their love.

The humming-bird whirrs from the jasmine,
The nightingale's off from the rose;
The wood-nymphs and naiads and fairies
Have left all their haunts in repose.

Titania—Queen of the Kingdom—
With Ariel hovers in air;
Lurid, the syren of sea-nymphs,
Is braiding her locks to be there.

Arcadia's wild with commotion,
And Comus and all of his crew,
With Satyrs and Fauns and Bacchantes
Are making the greatest ado.

Above and beneath and around us
Are myriad presences bright;
The spirit of love will evoke them—
They'll be at the wedding to-night.

The Queen of the Bees is to marry,
Her Consort is there in his pride;
She stands in the midst of her maidens,
And fairest of all is the bride.

—Selected.

QUERIES and REPLIES.**The Anatomy of Italian and German Bees.**

Written for the American Bee Journal

Query 667.—Is there any difference in the anatomy of Italian and German bees?—N.

Yes.—A. B. MASON.

Ask Prof. Cook.—J. M. HAMBAUGH.

I think not.—EUGENE SECOR.

Not that I know of.—G. L. TINKER.

I leave this question to Prof. Cook.—G. M. DOOLITTLE.

I do not understand the question.—R. L. TAYLOR.

I presume not.—M. MAHIN.

See Prof. Cook's answer to this.—J. M. SHUCK.

No. The only difference is in color, and perhaps in size.—C. H. DIBBERN.

It is claimed that the Italians have longer tongues.—C. C. MILLER.

The Italians are slightly larger, but the difference is not great.—DADANT & SON.

That is too deep a question for me. Prof. Cook is the man to answer that.—JAMES HEDDON.

None that I ever saw mentioned. I hope that this question will be fully answered by some of our entomologists.—P. L. VIAL-LON.

I have never dissected and examined the two races, so I cannot say. I should judge that there is not.—Mrs. L. HARRISON.

It is claimed that the Italian bees have longer tongues than the German bees (?). If they have, there is that much difference.—MAHALA B. CHADDOCK.

It is my belief that they are constructed physiologically the same, with perhaps one exception—the Italian tongue is generally conceded the longer.—WILL M. BARNUM.

Yes, in the length of the tongue; possibly in the size of the honey-stomach, etc., though I only know as to the tongue.—A. J. COOK.

While there is no anatomical difference in the two varieties, there is a very marked difference in the external contour of the abdomen. The abdomen of the Italian is more tapering than that of the black or German bee.—J. P. H. BROWN.

No difference discoverable to the common observer, and perhaps to nobody else. A mere difference in length of members of the body, etc., does not constitute a physiological difference. Come to think of it, there may be a difference in "anatomy," for it is vowed by some that they have bees that "make honey" by digestion—mine do not; they gather it from flowers.—G. W. DEMAREE.

There is no more than between a German and an Italian man. The organs are the same; the proof being that they will cross with each other, which would not be the case were they not anatomically and physiologically alike.—J. E. POND.

No. The word "anatomy" is defined to mean "the structure of an organized substance." If there was any difference in this, it would long ago have been learned by dissection. The mere variation in the length of the tongue, or outward appearance of the abdomen, do not constitute an anatomical difference, any more than the length of arms or shape of head would make a difference in the anatomy of men. A difference in the anatomy can only be learned by dissection.—THE EDITOR.

Red Clover as a Honey-Producing Plant.

Written for the American Bee Journal

Query 668.—Is red clover a honey-producing plant, to any appreciable extent?—L.

Yes.—A. B. MASON.

As a rule, no.—M. MAHIN.

Yes, on occasional years.—R. L. TAYLOR.

Not in Louisiana.—P. L. VIALLOX.

No, not in my locality (New York).—W. M. BARNUM.

It has not been with me (Illinois).—J. M. HAMBAUGH.

No, but it would be, if bees could work on it at all times.—DADANT & SON.

Yes, but common bees find the tubes too long to readily reach the nectar.—C. H. DIBBERN.

Yes, the best of all the 40 varieties of clover on our continent. All that we need is, the bee that can reach it.—Mrs. L. HARRISON.

Yes, but it is often to the bees, like the gold in Nature's great retorts—out of human reach.—J. M. SHUCK.

Yes, undoubtedly. Like all other honey-producing plants, it probably yields better in some seasons than in others.—EUGENE SECOR.

Certainly. You can pull off the little tubes, and suck the nectar out of it.—C. C. MILLER.

It is some years, when the flowrets of the heads are short from a partial drouth.—G. L. TINKER.

Red clover produces a quantity of nectar, but the *Apis mellifica* are able to obtain but very little from it.—H. D. CUTTING.

The second crop, and the mammoth variety, do often give considerable honey; especially to the yellow races of bees.—A. J. COOK.

In some seasons it is, and in some it is not. The humble, or bumble, bee gets a large portion of its stores from this source.—J. E. POND.

Yes. It produces four times the nectar that the white clover does, in this locality. The trouble is that the corolla is so long that the bees cannot reach this nectar, as a general rule.—G. M. DOOLITTLE.

It is a plant that yields large quantities of honey; but the nectaries of the flower are so deeply situated, that it takes a bee with a long proboscis to reach it.—J. P. H. BROWN.

I am glad that you asked that question, for I believe that mankind has been fooled by the idea that there is an ocean of honey in red clover, "if the bees could only reach it." As soon as I had bred up a strain of bees that worked readily on red clover, I demonstrated that it does not contain as much honey as white clover. I think that I am safe in saying that it is not nearly as good a honey-yielder. It sometimes does a fair business, however, when white clover is not yielding much.—JAMES HEDDON.

Yes, it is. It is a splendid honey-producer. Pull off the tubes from a head of clover, and suck them, if you want the proof. All that we lack is a bee with a tongue long enough to reach the nectar.—MAHALA B. CHADDOCK.

Red clover certainly produces nectar, to a liberal extent; but the tubes of the flower are too deep for the tongue of the *Apis mellifica*, except when they are more than usually well filled under favorable conditions. About once in three years, my Italians gather honey to a very appreciable extent, from red clover. The honey from red clover is the lightest in color, of all the grades of honey known to me. I have a sample taken this year, that is literally white. It "candies" more readily than any other honey known to me, but it never "granulates."—G. W. DEMAREE.

Yes; it is one of the best, if not the best of all honey-producing plants. We suppose that the question was intended to be, "Do honey-bees get honey from red clover to any appreciable extent?" To that question the answer is that it is rarely done—when it is "stunted" by drouth, and the "shortened" corolla allows the bees to get at it. The honey is of excellent color, quality and flavor, and generally furnishes the humble-bees with abundant stores.—THE EDITOR.

Essays on Extracted Honey.

We offer Cash PRIZES for the best essays on "Extracted Honey," each essay not to exceed 2,000 words in length, and must be received at this office before Jan. 1, 1890. The first prize is \$5.00; the second, \$3.00; and the third, \$2.00. All essays received on this offer will become the property of the AMERICAN BEE JOURNAL, and is open for competition to its subscribers only.

CORRESPONDENCE.

WINTERING.

Investigating the Causes of Loss of Bees in Winter.

Written for the American Bee Journal
BY C. J. ROBINSON.

I have written on this subject heretofore, and I trust that it will bear continuation. Much more ought to be said, and some things repeated and examined in the strongest light to be found.

A post mortem investigation usually discloses the immediate cause of the subject's death. It may have been tubercle of the lungs; in such a case, unless the inquiry proceeds further, and finds the cause that produced the tubercles, but little is gained.

When bee-keepers find the cause of death of so many bees to be diarrhea, it behooves us, then, to look further, and, if possible, ascertain the cause or causes of bee-diarrhea. When we are not positive on any subject, we are apt to decide according to the evidence that makes the theory (or some preconceived notion of our own) possible—allowing it to take the place of direct testimony. Now my hope is, by thorough and intelligent investigation, to find the cause, or causes, and so counteract it, or them.

Among the many investigators who have acknowledged diarrhea as the immediate cause, some few have gone further, and hold that the malady is produced by the unhealthful quality of their stores—impure honey, immoderate use of pollen, fermented pollen, and so on; and to prove their conclusion correct, they claim that syrup, of refined sugar, when properly fed, exempts bees from the fatal disease. I have fed the syrup, and feel pleased with the result, but I have no faith in it further than its being a substitute for good honey.

Forty years ago I became satisfied that long terms of severe cold produced diarrhea in colonies other than strong ones that were in the most favorable condition as to food and clustering. Actual experience gave me the idea. Perhaps there are other causes that produce, or tend toward producing, the dire disorder; but it is *cold* that is the direct cause.

Father Quinby was authority (none more reliable), that it was periods of intense cold that brought on the dreaded diarrhea. That excessive cold periods are the predominating cause of diarrhea, is proved by the case of Mrs. Tupper many years ago. She took

from a row of colonies that gathered their stores from the same field, each alternate one being removed to a cold, bleak situation, while the others were kept warm. The first perished with diarrhea, while the latter wintered well.

I think Mr. Heddon's "pollen theory" has some foundation in fact. While bees are eating much pollen, they are not in a condition to endure continued confinement, and when pinched with cold, digestion does not proceed normally; so, if the two unfavorable conditions (pollen and cold) be present, their food does not digest properly, producing disorder internally, and resulting, inevitably, in fatal disease commonly called diarrhea.

While bees feed on good honey, or purified sugar syrup, of the proper consistency, the whole is duly digested and assimilated; that is, all is converted into blood or juices of the bees, and the waste or impurities of the blood is eliminated through the pores of the external covering and lungs in a gaseous form.

But when bees feed on pollen, or poor honey, their condition is different; the pollen cannot be *all* digested, and the residue cannot be eliminated in any way other than through the intestines as fecal matter. Then, in case the bees are kept in confinement for a considerable length of time, their intestines become surcharged with fecal matter, causing irritation, which is followed by virulent disease. For this reason, pollen is dangerous food while bees are passing through the unnatural ordeal consequent upon cold climates.

While bees are active, pollen is, perhaps, necessary as food; but while they are semi-dormant, pollen should be excluded, for the reasons before mentioned; and, because pollen being highly nitrogenous, it excites or stimulates activity at a time when bees should remain quiet, to be safe.

Food consumed by beasts generates heat, and they take it in proportion to the severity of the weather, to keep warm. Bees seem to act on the same principle; but as they are natives of warm climates, their structure is different—not adapted to the vicissitudes of extreme cold climates, and do not burn their food in digesting, to keep up warmth as animals do. It is exemplified when they have worked in the surplus sections until late in the season. Take off the unfinished sections on some cool morning, before all the bees have gathered into the hive; most of them will fill themselves with honey before they can be gotten out of the boxes. The result is, that the honey swallowed is not digested, and warmth is created, but discharged as

feces from the bees scattered before they regain the cluster.

When bees are very quiet during severe cold, some must be on the outside of the cluster—and colder than those inside. In ordinary winter weather, it is so mild on many days as to enable them to generate heat enough to enable them to change positions with those inside. But when the weather continues very cold during weeks in succession, the bees on the surface of the cluster are benumbed, and unable to change places and get warm. Then it is that their food is not digested; their bodies become filled with feces, and they must leave to discharge it in and about their hives—the well-known diarrhetic discharges, which, whenever occurring, hope of safety vanishes—the bees are in death's grasp.

If diarrhea does not appear, and the weather continues cold, the colony continues to grow smaller, in proportion to the length of time and size of the colony. Some colonies maintain the proper temperature by having the honey so distributed that they can have empty cells near the centre, into which they may creep for mutual warmth, thus being more compact.

Bees can exist but a short time in cold weather, when between combs of sealed honey. They can, when properly clustered, endure any degree of cold for a time, providing that they have food within their reach. When made warmer, do not consider them safe, unless they are made warm enough, and remain so long enough to enable them to change places with those on the inside; otherwise the result is fatal.

If the foregoing is correct (and I can vouch that it is), it is evidence showing that among those who have housed their bees and lost them, there bees were not warm enough, even though in a cellar or other depository. I am aware that some will say that they have thus successfully wintered bees many times, proving to themselves beyond a doubt that their bees were warm enough, but not considering that the place that was warm enough in some certain winters, is not so every winter, because of the variation of cold terms as to duration of time.

A degree of temperature suitable for large colonies, is too low for small colonies; that is, large colonies will remain quiet in a temperature so low as to render it unendurable for small colonies.

Forty-five years, ago, before knowing of bees being put into special repositories, cellars or other places during winter, I conceived the idea of putting small colonies into my cellar—such colonies as would not go through

the winter on the summer stands. This I considered no risk of importance, but I feared to experiment in that way with good colonies. After seeing the advantages of wintering small colonies in the cellar, I put large ones in, and adopted that method. Mr. Moses Quinby also practiced cellar-wintering.

Our way of doing it was to turn the hives (boxes) bottom upward, with the top of the hive resting on something up from the cellar bottom, and a quilt or some cloth covered over the lower end of each hive, to keep the bees from leaving the hive. The small colonies—such as had not filled their hives with comb, and needed to be fed, I broke off the dry combs down to, or near, the cluster, and then placed pieces of sealed comb over the cluster, and the bees would move on to the feed. Such is the best practice with bees in box-hives. The cause of loss (often amounting to dreadful calamities) during winter seasons, should be understood as far as possible.

Richford, N. Y.

BEE-ESCAPE.

The Reese Bee-Escape for Getting Bees Out of Supers.

Written for the American Bee Journal
BY F. GREINER.

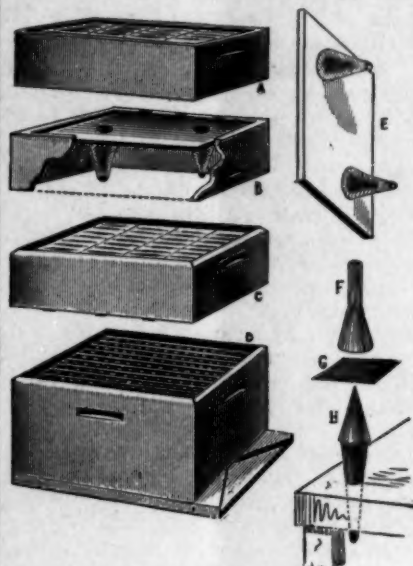
There seems to be some readers of the AMERICAN BEE JOURNAL who are not familiar with the Reese cone-case bee-escape. For the benefit of those, it might be well to reproduce what Mr. Reese says about it in *Gleanings* for January, 1888;

"The cone-case bee-escape is as follows: Take an empty surplus case that any bee-keeper may be using, for illustration the T super. Cut a board that will just fit evenly inside the case; bore two one-inch holes, one near each end; make two small cones of wire-cloth, just large enough to tack over the one-inch holes, and about 1½ inches high. Now make two more larger cones about 3½ inches at the base, and 3½ inches high, and tack over the smaller cones. This will leave a space between the smaller and larger cones; and each cone has a hole in its apex that will admit a bee. Fasten this board with cones near the bottom or top of the empty super, and the cone-case is ready for use. Now raise the filled super, and place between it and the brood-chamber this cone-case, with the cones pointing toward the brood-nest. In a few hours you may expect the full super all clean of bees, and not a cell uncapped."

The wire-cloth cone—the principle feature of the cone-case—can be used in other ways; for instance, when tak-

ing off honey from my chaff hives, I leave the full super with bees in the upper department in such a way as to stop all communication between the bees in the super and the bees in the brood-chamber. Through a ¼-inch hole in the gable of the cover, and over which a cone is placed temporarily, the bees from the full super will all make their exit in a few hours, and even very young bees will readily find their way back into their parent hive, as the escape-hole is perpendicularly in line above the common entrance.

For convenience, I have a quantity of attachable cones, consisting of a small piece of board 2x3 inches, with



The Reese Bee-Escape.

an inch hole bored through, and a cone nailed over it; this device can easily be fastened with a tack or two, to any part of the hive, and has proved a great help to me in ridding supers of bees.

The most of my wide-frame supers which I use on single-walled hives, have a ¼-inch hole bored in one end of them, for common closed by a button; over this hole I place an attachable cone, when the super is filled; I raise it and slip a honey-board (or oil-cloth would probably do as well), between the super and the brood-chamber, and in two hours the bees will usually have left. I have not found it necessary to use the double cone, still it may be safer to.

Now I would like to say that if Mr. Heddon practices a better plan than Mr. Reese has given us, I would like to have him prevail upon the inventor of that plan (see page 636) to describe it, and let his light shine. Thousands of bee-keepers who are working hard to make an honest living, will thank him for it. As far as I know, Mr. Reese

has given us the best thing for the purpose, and I make the motion to extend to him our unanimous vote of thanks. Who seconds this motion?

Naples, N. Y., Oct. 8, 1889.

BEE-STINGS.

Results of Bee-Sting Poison in the Human System.

Written for the American Bee Journal
BY C. B. HILLS.

In reply to Mr. Duncan (page 685), I can say from quite an extensive experience, that I believe there are cases where bee-sting poison does in a greater or less degree cause impure blood eruptions.

A few years ago, while handling a frame thickly covered with bees, I got several stings in the end of my thumb; as quick as I got my hands at liberty I scraped a knife over the end of the thumb—probably broke some stingers off; but whether it was their working into the flesh, or the poison they had injected, this much I am positive of, that from that hour it commenced to be inflamed, and in four days it was very painful.

A doctor examined it, pronounced it a felon, and thought that it would hasten it to lance it, which he did; it only discharged a little very dark-colored blood, and closed up, so I had it lanced again. It laid me up for four weeks, and when it did get well, it left the thumb partly useless for life.

The point that I wish to convey is this: There is no question but that the stings I received in the end of my thumb, were the direct cause of the felon; now may we not reasonably suspect that the poison injected into one's system, by repeated stings, in a measure—especially with some individuals—cause the afflictions, namely, boils, felons, carbuncles, etc.?

One thing in my own case: I have noticed that when I have received numerous stings, soon after I would be afflicted to a greater or less degree. If Mr. Duncan will look at Query No. 634, on page 358, he will see what some of the fraternity have to say on the subject.

I will say right here, to dispel the idea that some might have from reading the answers in that Query, that I do not, nor ever did, use tobacco or strong drink in any form.

Notwithstanding the minor drawbacks in bee-keeping, I take much pleasure, as well as profit, in bee-culture; and am indebted to the AMERICAN BEE JOURNAL for very valuable instructions in the pursuit.

Wellsville, N. Y., Oct. 30, 1889.

LAUGHABLE.

Amus Periwinkle's Kween—Du Beez Maik Hunny?

Written for the American Bee Journal
BY WILYUM SOCKS.

"When dockters disagree hoo shel deside?" Eye hev seen the abuv kwotashun in print nigh onto a 1,000 times, and ez no one seems to be abel tu deside the kwestyun, eye hev konkluded to deside it miself; and ez naybor Amus Periwinkle sez, "with out feer uv sucksessful kontradickshun."

Amus Periwinkle iz mi neerest naybor. Sumthing over a year ago a swarm uv beez lit onto hiz kotton-wood tree, and he rapt a shawel round hiz hed, and went out and hived them in a empty sope box. In November, he poot them into hiz seller, and kept them thare untill about the tyme sugar-sap began to run, when he caried them owt, and sot them into hiz back yard. But they didnt du verry well all spring—the wukers didnt croud the entrans—and Amus began tu git oneesy about them. So wun day he saw Billy Grafton passing, and kalled him in tu look at hiz beez.

Billy Grafton livs about a mile owt on the rode tu Sleepy Holler, and keeps a good menny bea-hives. It didnt taik him long tu find that Amusses beez hed no kween; so he told Amus that if heed kum out tu hiz playse, he wood sell him a good warrented kween.

In a week or two Amus went out tu git the kween; but it wuz a kold day, and Billy didnt like tu open his hives for feer the beez mite stampeed, or sumthing; so he looked around to see if he cood find a kween lofing on the aliting-borde. Pretty soon he picked up a droan, and told Amus she wuz all rite.

Amus hed gon to skule several terms in hiz younger daiz, but his edikashun in entymollygy wuz sumhow negleckted, and he didnt no a kween bea from enny uther kind uv a bug.

Thet same afternoon Amus kame to my hous, and invited me over tu hizzen, tu introdoos hiz kween for him. Eye acsepted the invitashun, and when he brot hiz kween out, holding the kaige between hiz hands tu keep hur warm, eye kood hardly keep from laffing az soon ez eye got site uv her. But, sez eye, "Amus jever see a kween bea befour now?" "No," sez Amus; "this iz the furst wun eye ever sot ies onto. Sheez a buty, aint she?"

"Well," sez eye, "Amus, thet thares a mity helthy looking kween, but its mi beleef she want never lay no aigs nor maik no hunny." "Why?" sez he. "Sheez not thet kind uv a kween,"

sez eye. "But sheez warrented," sez he, "and eye payed a hull doller for her!" "Kaint help thet," sez eye; "sheez only a setter; sheel set all summer, but she wont never hatch nuthing." But Amus waz surtin she waz all rite, and eye sed no more.

My plan waz tu shoo her in at the entrans, but Amus thot she wood stay on the nest better if she wer left in the kaige; so eye set her thet way and kame home.

The neckst morning eye met Billy Grafton in the rode; he laffed, then eye laffed, then we both laffed; and thets all we sed, except thet it waz a fine day for beez. Amusses beez swarmed out one at a time, and gradyully disappeared; but neckst spring he iz going to by a hull swarm.

But eye am digressin'. Eye hed in minde the kontrovessy now going on in the bea-payers konserving hunny. Prof. Kook, uv the Meeshegan Kolledge, a bea-keeper of sevral 100 col-loneys, and a gentleman hoo hez heertwofour stood hi in hiz professhun, hez writ a number uv peaces tu prove thet hunny iz "digested neckter," which he ascertaines by a test with litmus payper.

Now, befoure eye went into the bea-bizness for miself, eye supozed thet hunny waz "digested neckter;" in fakt eye inklined tu thet opinyun konsidabel more than 45 degrees. Thet iz wun of the original idees with a grate menny people. Thay think thet beez maik hunny out uv pawlen and wotter; and the modern idee, thet thay sip the neckter from the poseys and carry it tu thare hives, and bile it down with the heet uv thare boddeys, iz sumpting thet the avrage man or woman never thot ov. It kums to them, howsumever, after a few years pracktickel expeerens with beez. Tharefour eye klame thet Mister Kook iz not the original diskuverer of thet hurrysay. "The prufe ov the pooding iz in the eeting ov it." So it iz with hunny, and no litmous payper kood konvins me tu the kontrary.

Take a peace ov litmus payper, or enny uther kind uv payper, and hold it up behind a 2-year-old hoss-kolt, and he will kick up hiz heels just too (2) feet. Tri the same exparement on a mool, and if he iz in hiz prime and feeling well, the result will be jist the same. In nuther kase iz the plane ov polerizashun turned eether tu the rite or left, but strate out, and the formoola is ritten exactly the same, $Kl_3 CK_2$.

Now this wood seem tu prov the mool a hors, but it dont. The origin of the mool reeches fur back into the misty heertoofur ov antickuyty. He iz menshuned bi wun ov the anshent riters, hoo states thet a sertin yung man found hiz mools in the woods (Gen. xxxvi, 24). This proves hiz

grate antickuyty; and we no posatively, from sertin karackteristics peku-lar tu the beest, thet he iz a highbrid ov grate strength ov eendoorens and self-kontrolle, and not a hors.

The highpothesis thet hunny iz digested neckter iz untenable, bekaws, furst, it iz kontrary tu natur; seekond, it iz not in keeping with thet artistickness in houskeeping for which beez are adepts in an eminent degree; thurd, the droans woodent allow it; forth, it iz an unpossybillyty, bekaws the stum-ick ov the bea iz bilt sumpting like thet ov a hors, so thet the valves wont wurk both wais, and an emetick wood hev no effectt. It maiks wun feel sort uv flabergasted tu think uv it.

Tharefour, in the lite ov modern reesurch, eye klame—and eye think eye hev suffishently demonstraighed the fakt—thet hunny iz not digested neckter, but neckter gathured by the beez from the bokays of natur; depozited in thare sells, and biled down by the heet ov thare boddeys, into which iz then put a few drops of formick assid tu keep it from spileing. Ergo, hunny iz assidulayted neckter, and thets why it all tastes like hunny.

Skwashtown, Ioa, Oct. 12, 1889.

SEASON'S RESULTS.

G. M. Doolittle's Report—Bees by the Pound in the Mails.

Written for the American Bee Journal
BY G. M. DOOLITTLE.

The season of 1889 has been a very peculiar one. The spring opened unusually fine, continuing so up to May 20, when the bees in this locality were fully as strong as they usually are on June 15, which gave us bright hopes of the future—so much so that I began queen-rearing largely, thinking that for once I would be in the field with queens nearly as soon as some of our Southern brethren. But, alas for human hopes; for with May 21 came on a cold rain-storm, which, with nearly winter weather, continued until June 12. This upset all of my plans at queen-rearing, for nearly all of my nuclei perished, queen-cells were destroyed, and no queens were fertilized during that time.

After getting things in shape again, I found that, after my sales, I had only 26 queens left to commence the season with, the most of which were pretty well supplied with bees, but no brood except in the egg and larval form, for no brood was reared during this cold spell.

From these colonies I drew quite heavily of bees to start in the queen-business again, so that of course they

did not store quite as much honey as they otherwise would have done. When I saw that no brood was being reared at a period when such brood was to become the bees which should be the laborers in the honey harvest, I became convinced that no large crop of honey could be obtained; for it is the bees that hatch from the eggs laid by the queen 37 days before the honey harvest, that become the honey-gatherers during that harvest.

On June 13 the weather became warm again, and the bees poured out of their hives in search of supplies, and brood-rearing then commenced in earnest. White clover was unusually abundant for this section, but as it continued to rain nearly every day, the bees obtained little more from it than enough to sustain the large amount of brood that they were rearing.

Basswood opened on July 4, still very little honey was secreted in the flowers until about a week later, when the bees seemed to obtain honey from it as fast as I ever knew them to do; that is, they came in so heavily loaded, that for several days they dropped short of the entrance, in the same way that they always do when honey is very abundant. To my surprise, I found that although the honey was seemingly coming in very fast, still work in the sections was going on very slow, for the honey brought in was very thin, owing to the rain which still kept up.

Basswood lasted about three weeks in all, the bees getting honey from it only about two weeks. Teasel gave a little honey for a week after the basswood was gone, when the honey season for 1889 was over.

As usual during the past twelve years, buckwheat gave no more honey than was consumed by the bees while they were at work upon it; and as for other fall flowers, we have none, so to speak.

About Aug. 28 the bees began to come in quite heavily loaded, and I was curious to know what they were getting. A search soon revealed that the leaves of the oak and hickory trees were glossy with a sweet, sticky substance, which is known as "honeydew." The bees worked on this till about Sept. 8, when a rain stopped operations. Of this they stored about 10 pounds per colony, which, with the honey that they had on hand before, gave them enough for winter. I am somewhat fearful regarding the result of their wintering on such honey, but lack of time prevented my extracting it and feeding.

I now have 48 colonies ready for winter, having sold some this fall. The result in honey from the 26 queens is, 651 pounds of comb honey and 103

pounds of extracted, making a total of 754 pounds of honey in all, or an average of 29 pounds for the colony of each queen. This I believe is the poorest yield that I have had since I commenced the business of bee-keeping, except during the year 1869, when there was no surplus obtained from any source, and the bees had to be fed for winter.

Mailing Bees by the Pound.

Since the editor of the AMERICAN BEE JOURNAL published my letter on page 581, telling of the trial package of the 1-pound of bees which were mailed to me by Mr. E. L. Pratt, I have been somewhat amused at the comments thereon in the bee-papers. Especially was I amused by Messrs. Root and Alley "taking us up" so sharply for thus doing, because it was a "VIOLATION OF THE LAW" to send bees in that manner.

Of course it was but natural for me to think back to the time when Mr. Alley boasted of how he was too sharp for the government when queens were not mailable, in getting them through contrary to law in sealed packages; and how Mr. Root sent queens to Canada, and received them from that country contrary to law; as well as how all parties are now receiving queens from Mr. Benton and others across the water, in as open violation of the law, and more so, than is the mailing of "bees by the pound" in our own country.

If these "GREAT LIGHTS" have led the way, was it more than would be expected that we lesser ones should follow?

Now they should not be too severe on us because we followed their example. I do not know that the time has arrived yet to push the sending of bees by mail, and I think that perhaps it has not; yet I firmly believe that the time will come when they will be thus sent, for their lies a necessity in that direction. None who have censured the plan have seen wherein that necessity lies.

Mr. Alley says that scarcely any one would want to receive bees in that way, or words of like import, if my memory serves me rightly. Now I wish to say, that, according to my best belief, based on the thousands of letters that I have received, two-thirds of those keeping bees do not live within easy reach of any express office—many living from 10 to 30 miles away—which almost practically excludes them from receiving bees by express, without trouble and worry. I am 8 miles from the nearest express office, and I know what I am talking about.

Because every train that "comes in" is met by Messrs. Alley and Root,

it does not follow that no one else has different wants from theirs. It was not the saving of cost that I was thinking about when I desired bees by the pound in the mails, but it was that we who live miles from the express office might be equally independent with our more-favored brethren. I think that when Mr. Alley comes to look at it in this light, he will see that he was wrong in thinking of sending in petitions opposed to those of Mr. Pratt.

Borodino, N. Y.

BEES IN WINTER.

Preparing Bees so that they will Winter.

Written for the American Bee Journal

BY DR. J. M. HICKS.

I have received many letters enquiring as to the best method of wintering bees. While I am willing to impart all the knowledge that I can for the benefit of the readers of the AMERICAN BEE JOURNAL, and especially to those who seem anxious to succeed in wintering their bees, I am fully aware that the same process or plan that I might suggest at present, would not prove as successful in some localities as it might in others; hence I will give a plan which, if followed out, will no doubt prove successful in localities where the necessity seems to call into practice a plan that is easiest managed by the greater number, as well as by those who live in localities that are usually most severe on the bees.

I have arranged several bee-houses in the last few years, for many who are interested in the welfare of many colonies of bees, and knowing also how easy it will be to add the extra lumber, as well as some extra labor, in order to save the bees during the approaching winter.

I suggest that the hives be placed on a close-fitting platform or floor, which may be laid temporarily; on this, place the hives about 6 inches apart, leaving about the same amount of space at the front and rear of all the hives, the platform being wide enough, of course, to admit of a back and front wall of plank. The back wall should fit down on the platform, and the front should have 2-inch blocks laid 6 or 8 feet apart, so as to lay a 6-inch board along in front of the hives on the blocks, and the edge of the board to fit close up to all the hives, which will all be in perfect line.

The front wall will also rest on the 2-inch blocks, and form a 6-inch space in front of the hives, and the 6-inch board will form the bottom of the space, leaving an open entrance to all

the hives, which is formed by means of the 2-inch blocks before referred to. This makes a complete, continuous box around all the hives, which are spaced about 6 inches apart.

Now gather forest leaves, and pack them between and around all the hives. (You need not fear getting too many leaves, as the tighter the leaves are packed between and around all the hives, the better.) The back and front walls should be raised high enough above the tops of the hives, to admit of a heavy layer of leaves on top. It will be provided, of course, that the bees have free egress and ingress, the entrances fronting toward the east.

I feel certain that those who take the trouble to provide their bees with such winter quarters, will have no sad faces on account of loss of bees the coming winter. In case any are not favored with a supply of forest leaves, I recommend as the next best article for packing, oat-straw, which should be free from dampness. If the packing is well done, I feel assured that each colony will winter safely on less than ten pounds of honey, which will pay well for all the trouble. Each colony should have at least from 15 to 20 pounds of honey to last them through the winter. I gave directions last spring as to the kind of food, and how to feed to all colonies that are destitute of food. Bees should have at least a good shed over them, and be placed above the ground, out of the reach of mice.

Indianapolis, Ind.

KANSAS.

It is a Good Field for Bees— Report for 1889.

Written for the American Bee Journal
BY REV. J. D. GEHRING.

Is Kansas a good place for bees? A few years ago a negative answer would have been given, even for this region; but now we can say, "Yes, white clover, in great abundance, is here to stay; also Alsike and sweet clover is plentiful along the railroads and public highways."

In the early spring we have the various vine-fruit bloom, and apple, peach, plum, cherry and pear tree blossoms in the greatest profusion. Along the river courses, we have also the linden.

Golden Rod as a Honey-Plant.

As to the golden-rod, I can only say with confident assurance that I am right, that there is plenty of it in this part of Kansas; but I begin to feel a little doubtful as to its honey-produc-

ing excellence. I have watched it closely for the last four years, where I had it in sight from my apiary every day during blooming time, and I cannot say that it yielded a good flow of honey. However, I am not sure that this is not owing to conditions of weather and season.

The main trouble with golden-rod seems to be, that it begins to bloom when, as a rule, the weather is very hot and dry; and, just about the time it is at its best, we have cold rains and frost. This was the case here this season.

During the last two days of August, the bees brought in the honey at a furious rate—mostly from white "smart-weed." Since Sept. 1, they have done nothing. I shall probably have to feed some of mine, for when the honey-flow ceased, they had a great quantity of brood, and but a small supply of stores in the brood-nest.

The early part of the season, after fruit-bloom, was just like the latter part—cold and wet; but the frequent rains, keeping the white clover fresh, gave us the "bulge" on white honey, and we can report a good crop of the very best of honey.

I began the season with 18 colonies—nearly all Italians. I desired no increase, and I succeeded in keeping it within 25, all told. I took from 18 colonies, 1,500 pounds of white clover honey, and 200 pounds of yellow honey—all in one-pound sections. I have sold all of it in the home market at from 15 to 20 cents per pound, and could sell another ton of it if I had it.

Two of my Italian colonies gave 140 pounds each, of the finest honey I had.

Getting Swarms with Shot-Gun.

My queens have their wings clipped. I would not try to keep bees, where large shade-trees are as numerous as they are in Lawrence, with queens able to go where they please. I had one queen which I failed to catch, after repeated efforts; she was a "harum-scarum, a tom-boy." I always found her when I looked for her, but when I put my fingers on her to secure her, like the Dutch woman's flea, she wasn't there! But she concluded that she would go to seek a home where she could reign unmolested, and so, one day, she came out with her whole family, drones and all; I do not think that there was a pint of bees in the hive when I examined it—and they were young ones.

I think that the queen wanted to go off at once, but she finally consented to cluster in the highest top of the highest limb of the highest maple tree in my yard. I could not climb to where they were. I stood and looked

at them for some time; of course I was "riled a little." A squirrel or a "possum" I could shoot, but a swarm of bees could not be—"Hold on," I thought; "something must be done. That pesky queen shall not have it all her own way. I'll try my shot-gun on her."

With gun in hand, I ascended a ladder to the top of the house; got a good foot-hold, aimed, and fired right into the body of the cluster. The limb dropped, and many of the bees with it; but they soon returned, and took position on another near the place. I shot them down again, and again they came back, but this time lower down, so that I could climb up near them, and saw the limb off. Many bees were killed, but the queen escaped unhurt. I put them back, and clipped the queen's wings. The second day after, they came out again, but returned, and this was repeated several times. They refused to work, and were as cross as hornets. Finally I "kotch" that little "beast," and slaughtered her, and gave the colony a queen-cell.

Another colony persisted in swarming-out with a queen whose wings were clipped, and finally left—I think without a queen; they did not hatch one out, I know. One colony built 26 queen-cells on one frame, and 8 on another.

On the whole, I am well satisfied with my season's work; but I am exceedingly sorry that I cannot continue in the business. On account of my disability, caused by a gun-shot wound of the neck, I am unable to do the necessary work called for in an apiary of from 50 to 100 colonies—and less than that would not pay. My left side is partially paralyzed, and the left hand is too weak to lift heavy frames.

Lawrence, Kansas.

Sublime Thoughts.

There is a way out of every difficulty that meets us in life. It may not be the way we like, or the way that promises great glory, honor, pleasure or reward, but it is the way of deliverance, and we are bound to consider it God's way.—Joseph Owen.

There is a peculiar and appropriate reward for every act, only remember that the reward is not given for the merit of the act, but follows on it inevitably in the spiritual kingdom, as wheat springs from the grain and barley from its grain in the natural world.—F. W. Robertson.

Whenever we yield ourselves to the true law, a higher principle of order enters into our life; we rise out of childish weakness, out of animalism and evil; we are renewed and transformed into children of light; we become conscious of a steady, upward tendency, and of a godlike and immortal quality.—C. G. Ames in Mail and Express.

CONVENTION DIRECTORY.

1889. Time and Place of Meeting.

Dec. 4-6.—International, at Brantford, Ont., Canada.
R. F. Holtermann, Sec., Romney, Ont.Dec. 16, 17.—Northern Illinois, at Rockford, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

1890.

May 2.—Susquehanna Co., at Hopbottom, Pa.
H. M. Seeley, Sec., Harford, Pa.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM
OUR LETTER BOX

No Honey from Golden-Rod.

As it is desired to know the opinion of bee-keepers on golden-rod, I have watched to see the golden honey coming in, but it was all disappointment. I have never seen a bee at work on it in this latitude. I think that it is a poor honey-plant. From heart's ease and smart-weed is where we get our fall honey. I put 28 colonies into winter quarters in 1888, and wintered them without loss till March 15, 1889, and then I lost 10 colonies by fire, which left me 18, and 5 of them got some foul broody honey at one of my neighbor's, and that disabled them for the season; the balance did well on clover and linden, and increased to 28 colonies again. There is no fall honey here. I have fed back about 300 pounds of honey for winter stores. I winter my bees outdoors, packed with leaves, and have lost none in five years from wintering; neither do they spring dwindle, but come out healthy and strong.

JERRY SCOTT.

Clarinda, Iowa, Nov. 5, 1889.

Good Yield of Honey.

On page 556, Mr. H. E. Hill reports that in this (Chautauqua) county the honey crop was a complete failure; but were he here now, he could see that his report was incorrect. My bees never did better. I had one colony that began in May, that contained about a quart of bees, and from them I have sold 100 pounds of comb honey, and they yet have plenty of honey to winter on. My bees have more honey than they can use this winter. I put them into the cellar on Oct. 30. It is very wet here now, but we have had no snow yet, though we have had heavy frosts. I expect to start on a trip to the Western States on Nov. 1.

C. D. BARBER.

Stockton, N. Y., Oct. 31, 1889.

Paris Green—Golden-Rod.

About the first of last June I noticed in the morning a lot of bees on the grass in the front of some of my hives; they would crawl together in bunches of 4 to 8, and before night they would all be dead. I attributed it to getting poison from Paris green on the potatoes, as it commenced about the time the poison was used here, and ceased when the use of the poison ended, lasting about ten days. It was so last year, and I lost quite a lot of bees. Two other bee-men had the same experience. It affected the Italians, and scarcely any of the blacks. Has any one else had such an experience?

I bought 8 Carniolan queens the last of the season, and as to handling them, I like them very much.

There is but a little golden-rod near here, but I have watched for ten years, and

scarcely ever saw a bee on it until this year, when they worked on it very well in the afternoon; but in New York, across the Lake, in the Adirondack Mountains, I have seen them work on it as well as I ever saw them work on clover. I took 40 swarms over there, and found lots of the honey in the hives, of dark color, but fair quality—not such wonderfully nice honey as one writer in the BEE JOURNAL says. As a national flower, I shall not vote for the golden-rod nor the daisy, as they are a pest here, and are so looked upon. I should prefer the sweet-pea, or, what is best for bee-keepers, the clover blossom.

E. J. SMITH.

Addison, Vt., Nov. 4, 1889.

Best Honey-Flow Ever Known.

This season's honey-flow was the largest and finest that I ever saw in this locality. Bees are apparently in good condition for winter. Scarcity of bees prevented a glutted market, and bee-keepers are happy to sell at "let live" prices—8 to 9 cents for extracted, and 12½ to 15 cents for comb honey.

J. W. CLARK.

Clarksburg, Mo., Nov. 4, 1889.

Golden-Rod and Buckwheat.

Golden-rod is a good honey-plant in this locality, and usually furnishes the bees nearly enough honey for wintering. Buckwheat used to furnish considerable honey, but for the past four seasons it has not given much, and this season scarcely any.

A. W. SMITH.

Parkville, N. Y., Nov. 10, 1889.

Pronouncing "Carniolan."

How is C-a-r-n-i-o-l-a-n pronounced? In conversation with a German, who has spent considerable of his time in Austria, I learned to pronounce it Car-ni-o-lan; but Mr. Alley, on hearing me pronounce it so, smiled all over at my poor German. He says that it should be pronounced Car-ni-o-lan, with a big O. If there are any Austrian Germans who read the AMERICAN BEE JOURNAL, I would like to have them give the correct pronunciation of the word, so that we may call things by their right names.

E. L. PRATT.

Marlboro, Mass.

[We fully agree with Bro. Alley. The accent is on the first syllable, and on the O. If we are not right in this opinion, will some of our Austrian readers please correct us?—ED.]

Digested Nectar—Golden-Rod.

I have been somewhat interested in the reports as to the value of golden-rod as a honey-plant. I used to think as does Mr. Secor, when I lived in Iowa, that as a honey-plant it was of little value; but I find that here in Missouri, it is a valuable honey-producer, usually producing a good surplus of very fine golden-colored honey, that cannot be distinguished from Spanish needle honey, except by the flavor. The same is true of Spanish-needle in Iowa—I never got any honey from it there, but here it yields profusely.

In regard to the digested nectar controversy, although I am no scientist, I cannot accept Prof. Cook's theory; it may be correct, but it does not look reasonable to me. One reason is, that, according to my idea, it takes time to digest any article in the stomach, and where a colony of bees will gather 10, 20, 25, or even 30 pounds of honey in one day (as we have had re-

ports), it does not look reasonable that they could accomplish such an amount of work, or digestion, or whatever you may call it.

Our honey crop here is small, the white honey harvest being light, and the late honey almost a failure; and, to make matters worse, for me, on July 4, I lost my house by fire, and nearly all that we had in it, with some of my bee-supplies.

L. G. PURVIS.

Forest City, Mo., Nov. 4, 1889.

Cause of Foul Brood.

I learned the bee-business in Germany, but I did not understand the different methods of handling bees that we have in this country. I do not find the cause of foul brood in the bee-book that I am reading. Is it not the queen's fault? Will some one please answer? I do believe that if a queen is too old, she causes foul brood. Some keep queens for 3 or 4 years, when they are good ones, but this is altogether too long. I, for one, never had any trouble with the disease among my bees here in America, but I lost all that I had in Germany, in 1871. I have a good recipe that is used in Europe, and if any bee-keepers desire to know it, I shall be glad to publish it.

The honey season has been very poor in this locality, and the increase was small. I have three out-apiaries, but hardly any surplus honey. I shall now try to winter part of my bees on the roof, as I live in the city, and have but little room, and cellar-wintering cannot be practiced, as my cellars are too damp.

JOHN H. BLANKEN.

Jersey City, N. J., Oct. 26, 1889.

Some Questions.

1. After the bees have hatched, will there not be a little case left in the cells? Should it be left in? or can it be removed?

2. I have packed my bees with sawdust in a bee-house. Shall I keep the door open, or not?

ALBERT MALLERY.

Portville, N. Y.

[1. Yes, a slight cocoon will be left in the cells after the bees are hatched—but it is such a trifle that it takes hundreds of them to make much difference in the size of cells. The only remedy is to melt up the combs and either give the bees comb foundation, or else let them build new comb.

2. The principal point is to keep the cellar at an even temperature—about 45 degrees. If it is necessary to open the door a short time to do this, then open it. If not, let it remain closed.—ED.]

Season's Results—Shade-Boards.

I put 35 colonies into the cellar about Nov. 15, 1888, which was my first experience in cellar-wintering. They wintered very nicely—all except the 5 colonies that starved, and one that came out queenless. The starving was caused by my taking too much stock in reports of bees wintering on so much less stores in the cellar than when packed out-doors. My increase has been small, partly owing to the loss of queens, and uniting queenless colonies with others; so I now have 33 colonies ready for winter quarters. I have not lost so many queens in the five years previous. Bees built up quite rapidly on fruit bloom, and gathered some surplus from raspberry and basswood, but white clover was almost a failure. Up to the close of basswood, I had taken about 650 pounds of extracted honey, with the brood-chambers almost entirely empty.

Then came sweet clover, golden-rod, etc., from which they gathered enough for winter stores—not a starvation amount either—and 850 pounds of very thick, bright yellow extracted honey, which does very well for Michigan this year. Comb honey in this market retails at 15 cents, while I get 12½ cents for my extracted honey in fruit-cans, or \$1.00 for a 10 pound pail. So long as I can sell my entire crop at home, at these prices, I do not think that I shall bother with comb honey. My bees have paid me at the rate of \$100 per month, for the actual time spent in caring for them this year.

I derive so much benefit from simple suggestions by my brother bee-keepers, that I want to mention a very convenient and cheap shade for hives, made out of old barrel-staves nailed on strips one inch thick by 2 inches wide, and the length you want the width of the shade. Nail the staves on in single cover with a space between, and then another cover over the openings. They are light, and convenient to put as a temporary cover over many things, when not in use on the hives. An old bee-keeper, to whom I showed them, exclaimed, "Just the thing!" J. M. CLARK.

Hillsdale, Mich., Nov. 1, 1889.

Bees in Good Condition.

My crop of honey is almost all sold, at remunerative prices—8½ cents for extracted, and 12½ cents for comb honey. I think that bees are in good condition to winter. I shall put about 150 colonies into the cellar, which is the proper place to winter bees in Minnesota. H. H. ROSEBROCK.

Owatonna, Minn., Nov. 2, 1889.

Report for the Season.

In 1888 I put 29 colonies into winter quarters, and 28 came through the winter. I sold 2 colonies in June for \$5.00 each, increased the balance to 55 colonies, by natural swarming, and took 3,000 pounds of honey in one-pound sections—about 2,000 pounds of white honey, and 1,000 pounds of buckwheat. I have over 2,000 pounds on hand yet, over half of which is white honey. A. F. WHEELER.

Rossville, Iowa, Nov. 1, 1889.

How to Rear Queens, etc.

I commenced with 14 colonies of bees in the spring, and increased them to 20, and extracted 3,000 pounds of honey. I call that good for a beginner. I would like to know how to rear queens from an imported mother. PETER EHL.

Sherrill's Mount, Iowa, Oct. 31, 1889.

[Read Doolittle's Queen-Rearing book, and you will learn all about it.—Ed.]

Golden-Rod Honey—Bee-Cellar.

Our good old Granite State is not, strictly speaking, a honey-producer; but in the Connecticut and Androscoggin valleys, there is some fine bee-pasturage. The weather here the first of the season was all that one could desire; the bees were breeding rapidly, and gathering honey fast. About July 5, it began to rain, and it rained all through July and August; by Sept. 1 my 80 colonies of bees were almost destitute of honey. About this time the golden-rod began to bloom, sun began to shine, and the bees went to work, and they did work for about four weeks, early and late; so that by Oct. 1, the 80 hives were pretty well filled with a fair quantity of fine comb honey in sections to spare. Golden-rod did

it, for we have no other source of fall honey. The honey was a transparent amber, quite thick, and the flavor was very good; crushed in the comb, and put up in glass jars, it attracted a good deal of attention at the county fair this fall.

I have just completed a honey-house 20x30 feet, 12-foot posted, with a cemented bee-cellar beneath, which will winter about 200 colonies of bees. The cost of the building was about \$300. Honey (comb or extracted) sells readily for 20 cents per pound here. A. D. ELLINGWOOD.

Milan, N. H., Nov. 4, 1889.

International Bee-Association.

Mr. R. Holtermann, the efficient Secretary, has sent us the following concerning the coming convention:

The programme for the American International Bee-Association, which is to meet at Brantford, Ontario, Canada, Dec. 4 to 6, next, is not yet complete. However from the following it will be seen that every effort has been made to have a good one. The first session will be at 2 p.m. of the 4th.

Bee-Keeping an Occupation for Women—Miss H. F. Buller, Campbellford, Ont.

Cellar vs. Out-Door Wintering—R. McKnight, Owen Sound, Ont.

Shipping Queens—F. H. Macpherson, Beeton, Ont.

Disposal of the Honey Crop—Thomas G. Newman, Chicago, Ills.

Cellar Wintering—S. T. Pettit, Belmont, Ont.

Riding Hobby-Horses—Bee-keeping a recreation from other pursuits, and an antidote for disease—E. R. Root, Medina, O.

Alimentary System or Apparatus of the Honey-Bee—Prof. A. J. Cook, Agricultural College, Mich.

S. Corneil, Lindsay, Ont.—Subject not given.

The President will give his annual address which, doubtless, will be amusing and instructive.

Reduced rates, at least one and one-third fare for return trip, may be secured on the Grand Trunk and Canadian Pacific railway; the latter tickets must be purchased to and from Galt or Woodstock. For further particulars, apply to the Secretary.

Remember you must have a certificate when purchasing your ticket for Brantford on the Grand Trunk railway, or Galt or Woodstock on the Canadian Pacific railway.

Reduced hotel rates (\$1.50) may be secured at the Kirby House. The Commercial Hotel also, close to the place of meeting, is a good one-dollar house.

The "International" Convention has a strong claim upon every apiarist, and the attendance will be very large, no doubt. The Secretary is doing all he can to make ample arrangements for the meeting, and we hope that it will prove to be one of the most profitable Conventions ever held.

The Farm Journal, Philadelphia, Pa., has the largest circulation of any agricultural periodical in the world—150,000. It is now in its 13th volume, and is a good, practical Monthly. We can offer the *Farm Journal* and either the *AMERICAN BEE JOURNAL* or the *ILLUSTRATED HOME JOURNAL* from now until Dec. 31, 1890, for \$1.20.

Or, we will give it free for one year to any one who will send us one new subscriber for either of our Journals with \$1.00 (the subscription price).

This grand offer should bring us thousands of responses at once.



ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

Your Full Address, plainly written, is very essential in order to avoid mistakes.

If You Live near one post-office and get your mail at another, be sure to give the address that we have on our list.

Give a Copy of "Honey as Food and Medicine" to every one who buys a package of honey. It will sell lots of it.

Dr. Miller's Book, "A Year Among the Bees," and the *AMERICAN BEE JOURNAL* for one year—we send both for \$1.50.

If you Lose Money by carelessly enclosing it in a letter, it is without excuse, when a Money Order, which is perfectly safe, costs but 5 cents.

New Subscribers can obtain the full numbers for 1888 and 1889 for \$1.80, if application be made at once, before all the sets of 1888 are gone.

Paper Boxes—to hold a section of honey for retail dealers. We have two sizes on hand to carry sections 4¼x4¼ and 5¼x5¼. Price, \$1.00 per 100, or \$8.50 per 1,000.

Preserve Your Papers for future reference. If you have no **BINDER** we will mail you one for 60 cents; or you can have one **FREE**, if you will send us 3 new yearly subscriptions for the *BEE JOURNAL*.

Please write American Bee Journal on the envelope when writing to this office. Several of our letters have already gone to another firm (a commission house), causing vexatious delay and trouble.

Pure Phenol for Foul Brood.—Calvert's No. 1 phenol, mentioned in *Cheshire's* pamphlet on pages 16 and 17, can be procured at this office at 25 cents per ounce. Not being mailable, it must go by express.

In order to pay you for getting new subscribers to send with your renewal, we make you this offer. For each yearly subscriber, with \$1.00, you may order 25 cents worth of any books or supplies that we have for sale—as a premium.

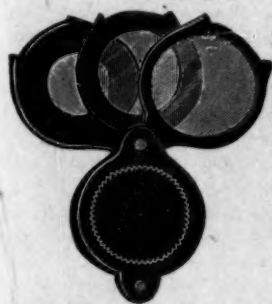
A Home Market for honey can be made by judiciously distributing the pamphlets, "Honey as Food and Medicine." Such will create a demand in any locality at remunerative prices. See list on the second page of this paper.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the *American Bee Journal* must be sent with each order for another paper or book:

	Price of both.	Club
The <i>American Bee Journal</i>	1 00	...
and Gleanings in Bee-Culture.....	2 00	1 75
Bee-Keepers' Guide.....	1 50	1 40
Bee-Keepers' Review.....	1 50	1 40
The Apiculturist.....	1 75	1 65
Bee-Keepers' Advance.....	1 50	1 40
Canadian Bee Journal.....	2 00	1 80
Canadian Honey Producer.....	1 40	1 30
The 8 above-named papers.....	5 85	5 00
and Langstroth Revised (Dadant).....	3 00	2 75
Cook's Manual (old edition).....	2 25	2 00
Doolittle on Queen-Rearing.....	2 00	1 75
Bees and Honey (Newman).....	2 00	1 75
Binder for Am. Bee Journal.....	1 60	1 50
Dzierzon's Bee-Book (cloth).....	3 00	2 00
Root's A B C of Bee-Culture.....	2 25	2 10
Farmer's Account Book.....	4 00	2 20
Western World Guide.....	1 50	1 30
Heddon's book, "Success,".....	1 50	1 40
A Year Among the Bees.....	1 75	1 50
Convention Hand-Book.....	1 50	1 30
Weekly Inter-Ocean.....	2 00	1 75
Toronto Globe (weekly).....	2 00	1 70
History of National Society.....	1 50	1 25
American Poultry Journal.....	2 25	1 50

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.



Triple-Lense Magnifiers for the inspection of bees, insects, etc. They are invaluable in the conservatory, or if for only a very few plants. For boys and girls, they make very pleasant studies, and arouses in them a laudable

enthusiasm for investigation. Price, by mail, 80 cents; or the *AMERICAN BEE JOURNAL* for one year, and the Magnifier, for \$1.50.

A Handsome Present.—As the convention season is now on hand, we will make every subscriber this good offer: Go and call on your neighbor who keeps bees and ought to take the *BEE JOURNAL*. Get his subscription and one dollar for a year; send it to us, and we will present you a copy of the *Convention Hand-Book*, by mail, post-paid, for your trouble. Here is a grand chance for all to get a valuable book without costing them a cent!

Every *Hand-Book* contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with subjects for discussion. They sell at 50 cents each, and are nicely bound in cloth covers.

Please to get your Neighbor, who keeps bees, to also take the *AMERICAN BEE JOURNAL*. It is now so CHEAP that no one can afford to do without it.

Honey and Beeswax Market.

CHICAGO.

HONEY.—Receipts of comb are averaging about as they usually do with a fair crop. Prices rule at 13@14c. for choice to fancy 1-lbs., which comprise the bulk of the receipts, very little in sections averaging 1½ to 2 lbs., and sells at 10@12½c.; dark, 8@10c. Extracted, 6@8c.

BEEWAX.—25c. R. A. BURNETT, 161 South Water St. Nov. 8.

KANSAS CITY.

HONEY.—White clover and Linden 1-lbs., fancy, 14@15c.; good, 13@14c.; dark, 12c.; the same in 2-lbs., 13@14c.; dark, 12c. Extracted, white, 8c.; dark, 7c. Demand is good. Sales large for this time of year.

Sep. 27. HAMBLIN & BEARSS, 514 Walnut St.

DENVER.

HONEY.—We quote: In one-lb. sections, 16@18c.; off colors, 14@16c. Extracted, 7@8c.

BEEWAX.—20@25c. J. M. CLARK CO. CO., 1421 15th St. Sep. 20.

NEW YORK.

HONEY.—Extracted, white clover, basswood, orange blossom and California, 8c.; buckwheat, 6 cts.; common Southern, 65@70c. per gallon. Demand is good. Comb honey, fancy white 1-lbs., 16c.; 2-lbs., 14c. Fair 1-lbs., 14c.; 2-lbs., 11@12c. Buckwheat, 1-lbs., 11@12c.; 2-lbs., 10@11c. Demand very good for fancy white 1-lbs. and buckwheat 1-lbs.

BEEWAX.—22c. F. G. STROHMEYER & CO., 122 Water St. Oct. 2.

CHICAGO.

HONEY.—Demand for white clover 1-lbs. is improving, but price depends upon size and style of package, condition and appearance when received, ranging from 12@13½c.; basswood, 11@11½c.; buckwheat, 8@10c. Extracted, 6½@7½c., depending upon style and size of package.

BEEWAX.—27@28c. S. T. FISH & CO., 189 S. Water St. Nov. 9.

NEW YORK.

HONEY.—Demand fair. Western honey arriving freely, and prices declining. We quote: Fancy white 1-lbs., 14@15c.; 2-lbs., 12@13c.; off grades and mixed 10@12c.; buckwheat 1-lbs., 10@11c.; 2-lbs., 9c. Extracted white clover and basswood, 7½c.; orange bloom, 8½c.; California, 7½c.; buckwheat, 6 cts.; Southern 7@7½c. per gallon.

HILDEBRATH BROS. & SEGELKEN. 26 & 30 W. Broadway, near Duane St. Nov. 6.

BOSTON.

HONEY.—We quote: Fancy 1-lbs., 16@17c.; fair, 14@15c.; 2-lbs., 15@16c. Extracted, 8@9c. Market is in fairly good condition, but we are getting some of the odd grades from Western New York, Michigan and Wisconsin, and it is not arriving in very good condition, making it hard to sell.

BEEWAX.—None on hand. BLAKE & RIPLEY, 57 Chatham Street. Oct. 21.

CINCINNATI.

HONEY.—A quiet but steady demand for choice comb, at 14@16c. Fair demand for extracted at 5@8c.

BEEWAX.—Demand is good—20@22c. per lb. for good to choice yellow, on arrival.

Nov. 9. C. F. MUTH & SON, Freeman & Central Av.

KANSAS CITY.

HONEY.—Receipts are very light, and demand is increasing. We quote: White 1-lbs., 13@14c.; dark, 10@12c.; white 2-lbs., 12@13c.; dark, 10@12c. Extracted, white, 7@8c.; dark, 6c.

BEEWAX.—None in market. CLEMONS, CLOON & CO., cor 4th & Walnut. Oct. 12.

Convention Notices.

At the request of several bee-keepers, I hereby make a call for a meeting at Higginville, Mo., on Thursday, Nov. 14, 1889, at 9 a.m., for only one day, for the purpose of organizing a bee-keepers' association. Let all bee-keepers attend, that can do so. J. W. HOUSE, Santa Fe, Mo.

The Northern Illinois Bee-Keepers' Association will hold its annual meeting in the Supervisors' Room of the Court House, at Rockford, Ills., on Dec. 16 and 17, 1889. D. A. FULLER, Sec.

The International Bee-Keepers' Association will meet in the court-house, at Brantford, Ont., Canada, on December 4, 5, and 6, 1889. All bee-keepers are invited to attend, and State and District bee-keepers' societies are requested to appoint delegates to the convention. Full particulars of the meeting will be given in due time. Anyone desirous of becoming a member, and receiving the last Annual Report bound, may do so by forwarding \$1.00 to the Secretary.—R. F. HOLTERMAN, Sec., Romney, Ont., Canada.

We will Present a Pocket Dictionary for two subscribers with \$2.00. It is always useful to have a dictionary at hand to decide the spelling of words, and their meaning.

A New Premium.

The National Purchasing Co. of this city issue a Membership Ticket good for the year 1890, for the sum of one dollar. This Ticket is not transferable, and entitles the holder to all discounts that the Agency can secure on goods that may be ordered, and they are in a position to obtain more or less discount on every order received.

By a special arrangement with the Manager, Mr. C. L. Seavey, we are enabled to make this remarkable offer: We will forward a Membership Ticket for 1890 to any one sending us two new subscribers for the *AMERICAN BEE JOURNAL* or *ILLUSTRATED HOME JOURNAL* for one year with \$2.00. This offer is good only until Dec. 31, 1889.

The Harrisburg *Telegram* is preparing a complete history of the Johnstown disaster, which will be published shortly in an elegant volume. It is proposed to make the book a valuable souvenir of the great calamity, excellent alike in matter and illustration. The text will be from the pen of the editor, who is thoroughly acquainted with the subject and with the district, while the most eminent artists will furnish portraits and views engraved from original drawings and photographs. We advise those who desire a superb volume, worthy of a place in any library, to wait for the forthcoming work. Experienced canvassers are desired as local agents to solicit subscriptions, and should write at once for territory.

The *Forum*, for November, 1889, contains the following very interesting articles: American Rights in Behring Sea, by President J. B. Angell; Public Opinion and the Civil Service, by E. L. Godkin; Modern Claims upon the Pulpit, by Archdeacon F. W. Farrar; The Owners of the United States, by Thomas G. Shearman; Industrial Co-operation in England, by Prof. F. G. Peabody; Municipal Control of Gas Works, by Bronson C. Keeler; The Cost of Universities, by President David J. Hill; Wendell Phillips as an Orator, by Carlos Martyn; Requirements for National Defense, by Adj.-Gen. J. C. Kelton; The Domain of Romance, by Maurice Thompson; Types of American Women, by Prof. Hjalmar H. Boyesen. For sale by all book-sellers.

A remarkable paper on "Financial Panics, their Cause and Cure," is the leading editorial contribution in *Frank Leslie's Illustrated Newspaper* last week. It is from the pen of Gen. Spinner, the veteran former Treasurer of the United States.

Apiary Register.—All who intend to be systematic in their work in the apiary, should get a copy of the *Apiary Register* and begin to use it. The prices are as follows:

For 50 colonies (120 pages).....	\$1 00
" 100 colonies (220 pages).....	1 25
" 200 colonies (420 pages).....	1 50

